

autoimmune disease, and other idiopathic causes. The degree of fibrosis determines the clinical significance of the mediastinal lesions. Most patients have nonspecific symptoms and the mediastinal fibrosing disorder is often discovered as an incidental radiologic finding. Enhanced computed tomography may be helpful in identifying the mediastinal changes and the degree of compression of the involved structures. There is no universally accepted therapeutic modality for the treatment of chronic fibrosing mediastinitis. Surgical intervention is initially indicated in most patients to establish a diagnosis and particularly to rule out neoplasia. Surgical management is also necessary to alleviate the compression of involved structures and relieve the symptoms.

We congratulate the authors on the successful management of a difficult case. However, in our case we could not perform a similar operation because the diagnosis of mycobacterial infection was established. The mycobacteria perhaps would involve the prosthetic vessel and induce severe infection. However, medical therapy with an antitubercular drug can be administered in the case of positive identification of the mycobacteria. The results also showed that occlusion of the coronary artery along with the involvement of other great vessels had already disappeared with antitubercular treatment in our patient.²

We should consider some important points regarding similar patients with fibrosing mediastinitis, including the diagnosis, relief of the vascular obstruction, and advanced therapy. Surgical management is widely recommended for the diagnosis of suspected cases. If the diagnosis is established, some patients should be treated by surgical management at the same time and some patients should be treated with a drug. Although some cases of the disease may be considered idiopathic after surgical diagnosis, fibrosing mediastinitis should be treated surgically if the symptoms need immediate relief. Otherwise, idiopathic fibrosing mediastinitis should first be treated by steroids or tamoxifen rather than by advanced surgical treatment.³

The prognosis for fibrosing mediastinitis, generally speaking, is good with medical therapy. However, the mortality of the patients without therapy is still high and the health of many surviving patients becomes compromised as a result of disease progression. Fibrosing mediastinitis is still a chal-

lenge for thoracic and cardiovascular surgeons.

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Severe vasospasm in off-pump coronary artery bypass surgery: A difficult clinical problem

To the Editor:

We read with interest the article published by Schena and associates.¹ They have

highlighted the importance of vasospasm in the nongrafted right coronary artery (RCA) without any hemodynamically significant disease in a patient undergoing off-pump coronary artery bypass surgery (OPCAB) to the diseased left-sided vessels. We² have had a similar experience in which initially vasospasm developed in a normal RCA after OPCAB to the left anterior descending (LAD) and obtuse marginal arteries. The spasm was relieved by an intracoronary injection of vasodilators. Subsequently, severe vasospasm involving the left internal thoracic artery (LITA) and LAD developed. There was no improvement in myocardial ischemia despite use of intracoronary vasodilators and an intra-aortic balloon pump (IABP). This patient required a drug-eluting stent across the LITA-LAD anastomosis for relief of the spasm (Figure 1).

The incidence of persistent vasospasm requiring the use of intracoronary vasodilators, IABP, or stents in our experience with 677 OPCAB procedures was 0.33%.² If there is no improvement in myocardial ischemia despite standard measures or in the setting of recurrent myocardial ischemia after OPCAB surgery, intracoronary stents may have to be used. Coronary angiography should be performed promptly if unexplained myocardial ischemia occurs in the immediate postoperative period. An aggressive approach to this problem is associated with a satisfactory outcome.

We congratulate the authors on the successful management of a difficult case and

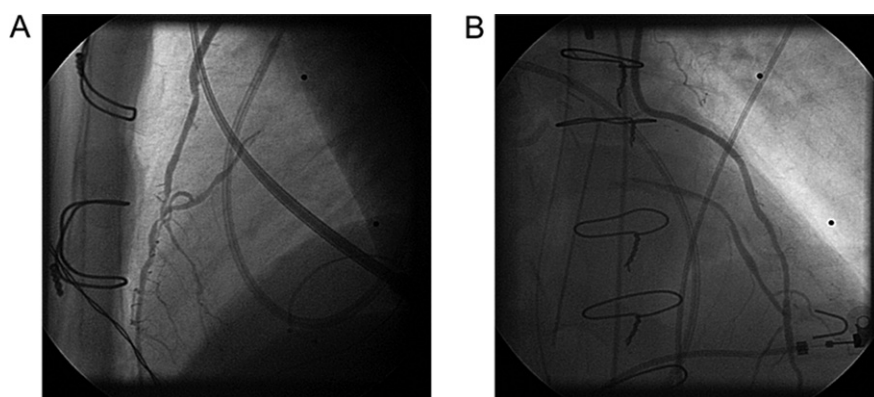


Figure 1. Severe vasospasm involving LITA and LAD, including the anastomotic area (A). Result of stent placement across the anastomosis (B). Source: Saxena P, Konstantinov IK, Singh T, Koniuszko MD, Newman MAJ. Persistent severe vasospasm in off-pump coronary artery bypass surgery: the value of intraluminal stenting. *J Thorac Cardiovasc Surg.* 2006;131:237-8. Reproduced with permission of Elsevier Inc.

emphasize that stenting can be an effective mode of treatment of persistent coronary artery and graft vasospasm.

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Surgery of Ebstein anomaly

To the Editor:

I read with great interest the article by Quinonez and colleagues¹ concerning surgical treatment of the Ebstein anomaly. This very informative article underlines the role of the right ventricle in the outcome of this congenital anomaly. As my colleagues and I² pointed out almost 10 years ago, impairment of the right ventricle is a major prognostic factor after surgery for the Ebstein anomaly. Inasmuch as medical therapy is difficult to manage, it seemed to us that the association of a bidirectional cavopulmonary shunt (BCPS) would be helpful in the early follow-up period. This continues to be our policy.

The term used by the authors, "1.5-ventricle," does not seem to me to be adequate. The flow of the superior vena cava varies between one third and one half of the cardiac output.³ The 1.5-ventricle concept is valid when one of the ventricles is anatomically partially deficient.

The article by Quinonez and associates does not answer a question that arises immediately: what are the indications for the BCPS? Their definition of "failing right ventricle" is not clear. In their series, 2 children were free of symptom, whereas, on the other hand, 3 adult patients were on the transplantation list. Right ventricular enlargement could be an indicator, but we

are still looking for quantitative data. In a study of the right and left ventricular volumes before and after surgery, my colleagues and I⁴ were unable to determine a threshold value for patients "at risk" and those that were "safe." In our experience, a large atrialized right ventricle (even if excluded after surgery), a very thin infundibular right ventricular wall, and/or a paradoxical septal motion are indications for a superior vena cava derivation. Among 105 patients with Ebstein repair and BPCS, we did not observe any deleterious effect of the shunt except for a transient swelling of the neck in 1 patient.

The BCPS does not solve all of the left and right ventricular problems. One of the patients in the authors' series is not improved and 2 in our own series had to undergo transplantation.

However, the associated anastomosis is an excellent additional procedure in patients with difficult indications.

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Reply to the Editor:

My colleagues and I thank Dr Chauvaud for his comments and acknowledge the contribution of his team to the surgical treatment of Ebstein anomaly.

The use of the term "1.5-ventricle" was a semantic choice used to represent an operation, rather than a quantitative or physi-

ologic descriptor. It is widely understood that diversion of blood flow by a bidirectional cavopulmonary shunt (BCPS) varies from one third to one half of the systemic venous return, depending on the patient's age.

To decide when to construct a BCPS, the surgeon has to use his or her judgment and experience and take into consideration the patient's clinical condition, echocardiographic data, magnetic resonance imaging data (if available), preoperative and intraoperative hemodynamic data, and the intraoperative morphologic appearance of the right ventricle. The status of the left ventricle is also very important. Our series is too limited to advise as to the specific indications of a BCPS in Ebstein anomaly, yet with further experience and follow-up these will become apparent. It is our impression that it is only needed in a few selected cases.

The term "failing right ventricle" is deliberately general. It may describe a right ventricle that cannot sustain the circulation after cardiopulmonary bypass; it may describe a right ventricle that is severely dysfunctional or dilated on echocardiography, magnetic resonance imaging, or intraoperative inspection; or it may describe a right ventricle with a large atrialized component, a thin wall, and paradoxical septal motion, as pointed out by Dr Chauvaud. In any of these circumstances, the patient may be free of symptoms. The underlying difficulty arises in the precise quantification of right ventricular function by the currently available methods. We are exploring the use of magnetic resonance imaging to better describe and quantitate the morphology and function of the right ventricle.

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The conduct of experimental circulatory arrest: The search for clinical relevance

To the Editor:

I read with great interest the excellent laboratory study by Dr Ananiadou and colleagues¹ detailing the neuroprotective effect of profound hypothermia at 10°C after 75 minutes of circulatory arrest in an acute porcine model (N = 12). The described neuroprotective mechanism